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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,630	01/18/2001	James H. Goethel	L-F-180DV	8472
26875 WOOD HERE	26875 7590 05/03/2007 WOOD, HERRON & EVANS, LLP		EXAMINER	
2700 CAREW TOWER 441 VINE STREET CINCINNATI, OH 45202		WITCZAK, CATHERINE		
			ART UNIT	PAPER NUMBER
			3767	
			MAIL DATE	DELIVERY MODE
			05/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
	09/764,630	GOETHEL ET AL.	
Office Action Summary	Examiner	Art Unit	
	Catherine N. Witczak	3767	
The MAILING DATE of this communication	n appears on the cover sheet with	h the correspondence address	
A SHORTENED STATUTORY PERIOD FOR F WHICHEVER IS LONGER, FROM THE MAILIN  - Extensions of time may be available under the provisions of 37 of after SIX (6) MONTHS from the mailing date of this communication.  If NO period for reply is specified above, the maximum statutory  Failure to reply within the set or extended period for reply will, by Any reply received by the Office later than three months after the earned patent term adjustment. See 37 CFR 1.704(b).	NG DATE OF THIS COMMUNIC. FR 1.136(a). In no event, however, may a repon. period will apply and will expire SIX (6) MONT statute, cause the application to become ABA	ATION. ply be timely filed  HS from the mailing date of this communication. UNDONED (35 U.S.C. § 133).	
Status			
1) Responsive to communication(s) filed on	01 March 2007.	•	
·— ·	This action is non-final.		
3) Since this application is in condition for allowance except for formal matters, prosecution as to			
closed in accordance with the practice ur	der <i>Ex parte Quayle</i> , 1935 C.D.	11, 453 O.G. 213.	
Disposition of Claims			
4) Claim(s) <u>1,3-6,8-13 and 15-22</u> is/are pen	ding in the application.		
4a) Of the above claim(s) <u>8-13,16-20 and</u>		eration.	
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>15 and 21</u> is/are rejected.			
7) Claim(s) is/are objected to.	•		
8) Claim(s) are subject to restriction	and/or election requirement.		
Application Papers			
9) The specification is objected to by the Exa	aminer		
10) The drawing(s) filed on is/are: a)	_	v the Examiner.	
Applicant may not request that any objection			
Replacement drawing sheet(s) including the o	- · · · · · · · · · · · · · · · · · · ·		
11) The oath or declaration is objected to by t	•		
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for fo	oreign priority under 35 U.S.C. §	119(a)-(d) or (f).	
a) ☐ All b) ☐ Some * c) ☐ None of:			
1. Certified copies of the priority docu			
2. Certified copies of the priority docu			
3. Copies of the certified copies of the		eceived in this National Stage	
application from the International E		and the second	
* See the attached detailed Office action for	a list of the certified copies not r	eceivea.	
Attachment(s)			
1) Notice of References Cited (PTO-892)		ummary (PTO-413) /Mail Date	

Paper No(s)/Mail Date \_ U.S. Patent and Trademark Office PTOL-326 (Rev. 08-06)

F aper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application
6) Other: \_\_\_\_.

3) Information Disclosure Statement(s) (PTO/SB/08)

## **DETAILED ACTION**

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by Poulsen et al (Us 6,340,357). 1. Poulsen et el disclose in Figure 1 a syringe comprising a barrel (10) and a plunger (2) comprising a forward and rearward surface and a drive ram coupling extension (3) free of apertures and comprising a plurality of knurls (threading) protruding out rearwardly from the plunger, wherein the knurls are oriented transversely to the longitudinal axis and are adapted to the within an area enveloped by a coupling mechanism (13) of an injector drive ram.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Poulsen et al as modified by Niehoff (US 5,662,612). Poulsen et el disclose in Figure 1 a syringe comprising a barrel (10) and a plunger (2) comprising a forward and rearward surface and a drive ram coupling extension (3) free of

apertures and comprising a plurality of knurls (threading) protruding out rearwardly from the plunger, wherein the knurls are oriented transversely to the longitudinal axis and are adapted to the within an area enveloped by a coupling mechanism (13) of an injector drive ram.

Poulsen et al disclose the claimed invention except for the plunger having a forwardly facing surface being of a slope that conforms to the slope of an interior of the conical front wall. Niehoff discloses in Figure 1A that it is known to use a plunger having a sloped forwardly facing surface. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Poulsen et al with a plunger having a sloped forwardly facing surface as taught by Niehoff, since such a modification would provide for a plunger that would be more efficient in expelling substance from a barrel having a conical tip.

## Response to Arguments

- 3. Applicant's arguments, see response, filed 2/22/2007, with respect to the objection of claims 15 and 21 have been fully considered and are persuasive. The objection of claims 15 and 21 has been withdrawn.
- 4. Applicant's arguments filed 2/22/2007 have been fully considered but they are not persuasive. Although Poulsen may use different terminology, Poulsen still disclose the limitations of claims 15 and 21. Poulsen clearly states in the abstract that "the motor is further controlled to perform certain movements of the piston rod."

## Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine N. Witczak whose telephone number is (571) 272-7179. The examiner can normally be reached on Monday through Friday, 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Sirmons can be reached on (571) 272-4965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SUPERVISORY PATENT EXAMINER

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